

ADAPTABLE MANDREL FOR SPIN FORMING

ABSTRACT OF THE DISCLOSURE

5 There is provided a mandrel for spin forming that has a backing plate with
removably attached mandrel portions and mandrel spacers, such that the mandrel is
adaptable to numerous configurations. The various configurations of the mandrel are
used to provide different spin forming contour surfaces upon which metal sheets or
other spin formable materials can be spin formed. The adaptable mandrel also
provides the ability to create a desired spin formed product from either a single metal
10 sheet or multiple metal sheets joined by friction stir welding or other suitable
processes. A spin formed welded metal sheet may also undergo a trimming process to
remove the portions of the welded metal sheet having sufficiently different material
properties resulting from the weld process, including the weld joint.

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